

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-3. (Canceled).

4. (Currently Amended) A device for compensating a picture quality of a projection type display comprising:

a screen for displaying a picture projected from outside of the screen;

an optical detection/transmission part for detecting an environmental light of the screen, and transmitting in a form of a UV ray;

a video processing part for receiving, and converting an analog video signal into a digital video signal, and adjusting an offset and a gain thereof, for making the video signal displayable on the screen;

a sensing part for sensing the video signal from the video processing part and projected to a region of the screen;

a memory part for storing reference video information;

a UV receiving part for receiving the UV ray signal from the optical detection /transmission part; and[[,]]

a microcomputer for projecting the reference video information stored at the memory part onto the screen through the video processing part according to a user's picture quality compensation command, or a preset algorithm, and controlling the video processing part so that a luminance and chromaticity of the picture are calculated according to an output of the sensing part, the luminance and the chromaticity of picture are compared to preset values, and a compensation is made according to a result of the comparison.

5. (Currently Amended) A device as claimed in claim 4, wherein the sensing part includes;

a focusing lens focused on a region of the screen[[,]]; and
an optical sensor.

6. (Original) A device as claimed in claim 4, wherein the reference video information in the memory part includes black pattern video information and white pattern video information.

7. (Original) A device as claimed in claim 4, wherein the optical detection/transmission part is fitted to a region of the screen.

8. (Currently Amended) A device as claimed in claim 4, wherein the optical detection/transmission part includes[[:]]:

an optical sensor for detecting an environmental light of the screen; and[[:]]

a UV ray transmitter for converting the detected environment light into a form of a UV ray, and transmitting to the UV ray receiving part.

9. (Currently Amended) A method for compensating a picture quality of a projection type display having a body and a screen, comprising the steps of:

(a) the body projecting, and displaying a first reference picture on the screen, detecting a displayed picture, and calculating a chromaticity of the picture according to a user's command, or a preset algorithm;

(b) increasing an offset value of a color signal in R/G/B color signals, which lacks chromaticity, until the offset value is within a normally allowable range if the chromaticity calculated for the first reference picture is within a correctable range, and outside of the normally allowable range;

(c) the body projecting, and displaying a second reference picture on the screen, detecting a displayed picture, and calculating luminance and chromaticity of the displayed picture; and[[:]]

(d) increasing a luminance output level of the second reference picture to an optimal luminance step by step to complete a luminance compensation, and decreasing a gain of

a color signal in the R/G/B color signals, which has an excessive chromaticity, until the gain is within a normally allowable range if the chromaticity calculated for the second reference picture is outside of the normally allowable range, thereby completing the compensation.

10. (Original) A method as claimed in claim 9, wherein the first reference picture is a black pattern, and the second reference picture is a white pattern.

11. (Original) A method as claimed in claim 9, wherein the first reference picture and the second reference picture are displayed along a width of a periphery of the screen, respectively.

12. (Original) A method as claimed in claim 9, wherein the first reference picture and the second reference picture are displayed in a part of a periphery of the screen, respectively.

13. (Original) A method as claimed in claim 9, further comprising the step of increasing an offset of a color signal in the R/G/B color signals, which has an excessive chromaticity, until the offset reaches to a preset correctable range if the chromaticity calculated for the first reference picture is outside of the correctable range, thereby completing the compensation.

14. (Original) A method as claimed in claim 9, further comprising the step of putting the luminance output level back to a value before the luminance output level is increased in a case there is no actual luminance increase following the increase of the luminance output level for the second reference picture.

15. (Original) A method as claimed in claim 9, further comprising the step of decreasing a gain of a color signal in the R/G/B color signals, which has an excessive chromaticity, until the gain reaches to a preset correctable range if the chromaticity calculated for the second reference picture is outside of the correctable range, thereby completing the compensation.

16. (Original) A method as claimed in claim 9, wherein the first reference picture is a minimum value of a digital data value, and the second reference picture is a maximum value of the digital data value.

17. (Currently Amended) A method for compensating a picture quality of a projection type display having a body, a screen, and an optical detection/transmission means for detecting an environmental light of the screen and transmitting to the body, comprising the steps of:

(a) the body projecting, and displaying a first reference picture on the screen, detecting a displayed picture, and calculating a chromaticity of the picture according to a variation of the environmental light of the screen;

(b) increasing an offset value of a color signal in R/G/B color signals, which lacks chromaticity, until the offset value is within a normally allowable range if the chromaticity calculated for the first reference picture is within a correctable range, and outside of the normally allowable range;

(c) the body projecting, and displaying a second reference picture on the screen, detecting a displayed picture, and calculating luminance and chromaticity of the displayed picture; and[[,]]

(d) increasing a luminance output level of the second reference picture to an optimal luminance step by step to complete a luminance compensation, and decreasing a gain of a color signal in the R/G/B color signals, which has an excessive chromaticity, until the gain is within a normally allowable range if the chromaticity calculated for the second reference picture is outside of the normally allowable range, thereby completing the compensation.

18. (Original) A method as claimed in claim 17, wherein the first reference picture is a black pattern, and the second reference picture is a white pattern.

19. (New) A system for adjusting parameters of an image produced by a projection display, comprising:

a screen;

an optical detector for detecting ambient light at the screen and transmitting a signal indicative of a magnitude of the detected ambient light;

a receiver for receiving the signal transmitted by the optical detector;

a video processor for receiving a video signal and projecting an image based on the video signal onto the screen;

a sensor for monitoring at least a portion of the image on the screen; and

a processor for receiving monitoring information from the sensor and adjusting parameters of the projected image via the video processor based on the monitoring information.

20. (New) The system of claim 19, wherein the signal transmitted by the optical detector comprises a UV signal.

21. (New) The system of claim 20, wherein the receiver comprises a UV receiver.

22. (New) The system of claim 19, wherein the sensor is positioned away from the screen.

23. (New) The system of claim 19, wherein the sensor comprises:
an optical sensor; and
a lens for imaging at least a portion of the screen onto the optical sensor.
24. (New) The system of claim 29, wherein the parameters of the projected image
comprise luminance and chromaticity.
25. (New) The system of claim 19, further comprising a memory for storing reference
video information.
26. (New) The system of claim 19, wherein the video processor is adapted to project a
reference image based on the reference video information onto at least a portion of the screen,
and the sensor is adapted to remotely monitor the reference image.
27. (New) The system of claim 19, wherein the processor is adapted to compare
parameters of the monitored image with predetermined parameters.
28. (New) The system of claim 19, wherein the optical detector is positioned on the
screen.

29. (New) A method of adjusting parameters of an image produced by a projection display, comprising:

- projecting a first reference image onto a screen;
- determining a chromaticity of the projected first reference image;
- determining a color signal whose chromaticity is different than a desired value;
- adjusting, if the determined chromaticity of the projected first reference image is within a correctable range and outside a predetermined normal range, an offset value of the determined color signal until the offset value is within a predetermined normal range;
- projecting a second reference image onto the screen;
- calculating a luminance and chromaticity of the projected second reference image;
- adjusting a luminance level of the projected second reference image to a predetermined optimal luminance value; and
- adjusting, if the chromaticity of the projected second reference image is outside a predetermined normal range, a gain of a color signal until the gain of the color signal is within a predetermined normal range.

30. (New) The method of claim 29, wherein the first and second reference images are projected onto a peripheral portion of the screen.